Read each problem **very carefully** before starting to solve it and do only what is asked. Each problem is worth around 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

- 1. [5 points] Consider the function $f(x) = x^2 3x + 1$. Find the following values and simplify.
 - (a) f(a)
 - (b) f(a+h)
 - (c) $\frac{f(a+h) f(a)}{h}$

2. [5 points]

(a) Consider the function $f(x) = x^2 - 3x + 1$. For which values of the input is the output of the function 11? (Show all steps.)

(b) Consider the function

Find g(4).

Solve the equation g(n) = 5 for n.